WHAT IS CLAIMED IS:

[Claim 1]

In a computer system including a host computer, a storage device having a magnetic disk drive, and a fiber channel connection storage controller employing an ANSIX3TT11-standardized fiber channel as an interface between the host computer and the storage device, the magnetic disk drive being operable under control of the fiber connection storage controller, the fiber channel connection storage controller comprising;

N_Port_Name information which is information issued from the host computer for distinctly identifying the host computer is preinstalled in the storage control device prior to start-up of the host computer; the storage control device has means for permanently storing therein the information until this information is reset; after startup of the host computer, the host computer generates and issues to the storage control device a frame storing therein N_Port_Name information; the storage control device has means for comparing, upon receipt of this information, the N_Port_Name information distinctly identifying the host computer as already set and stored therein to the N_Port_Name information

presently stored in a received frame; and, a fiber channel connection storage control device has means for eliminating unauthorized access from the host computer in a way such that when the comparison results in match, processing based on an instruction of the frame is continued, and when failed to match, a link service reject (LS_RJT) frame for rejection of the received frame is returned to the host computer.

[Claim 2]

In a computer system including a host computer, a storage device having a magnetic disk drive, and a fiber channel connection storage controller employing an ANSIX3TT11-standardized fiber channel as an interface between the host computer and the storage device, the magnetic disk drive being operable under control of the fiber connection storage controller, the fiber channel connection storage controller comprising;

N_Port Name information which is information as issued from the host computer to distinctly identify the host computer is preinstalled in the storage control device prior to startup of the host computer; the storage control device has means for permanently storing therein the information until this information will be reset; after startup of the host computer, the

host computer generates and issues to the storage control device a frame storing therein N_Port_Name information; the storage control device has means for comparing, upon receipt of this information, the N_Port_Name information distinctly identifying the host computer as already set and stored therein to the N_Port_Name information presently stored in a received frame; a fiber channel connection storage control device has means for eliminating unauthorized access from the host computer in a way such that when the comparison results in match, processing based on an instruction of the frame is continued, and when failed to match, a link service reject (LS_RJT) frame for rejection of the received frame is returned to the host computer; and, the fiber channel connection storage control device also has means for setting N_Port_Name information items greater in number than or equal to a physical number of host interfaces (ports) as owned by the storage control device, that is, means for setting a plurality of N_Port_Name information items per port, and means for deterring unauthorized access from the host computer even for a multi-logical path configuration upon a fiber channel Fabric connection.

[Claim 3]

In a computer system including a host computer, a storage device having a magnetic disk drive; and a fiber channel connection storage controller employing an ANSIX3TT11-standardized fiber channel as an interface between the host computer and the storage device, the magnetic disk drive being operable under control of the fiber connection storage controller, the fiber channel connection storage controller comprising;

N_Port Name information which is information as issued from the host computer to distinctly identify the host computer is preinstalled in the storage control device prior to startup of the host computer; the storage control device has means for permanently storing therein the information until this information will be reset; after startup of the host computer, the host computer generates and issues to the storage control device a frame storing therein N_Port_Name information; the storage control device has means for comparing, upon receipt of this information, the N_Port_Name information distinctly identifying the host computer as already set and stored therein to the N_Port_Name information presently stored in a received frame; a fiber channel connection storage control device has means for eliminating unauthorized access

from the host computer in a way such that when the comparison results in match, processing based on an instruction of the frame is continued, and when failed to match, a link service reject (LS_RJT) frame for rejection of the received frame is returned to the host computer; and, the fiber channel connection storage control device also has means for setting N_Port_Name information items greater in number than or equal to a physical number of host interfaces (ports) as owned by the storage control device, that is, means for setting a plurality of N_Port_Name information items per port, and means for deterring unauthorized access from the host computer even for a multi-logical path configuration upon a fiber channel Fabric connection; and

further characterized in that in a system having many magnetic disk volumes as in a disk array device under control of the storage control device and also having a plurality of channel path routes, the fiber channel connection storage control device has means for performing management, in a one-to-one correspondence relationship, of storage regions including a logical unit number (LUN)-based logical disk extent, a RAID group-based logical disk extent, physical volume extent and the like, ports of the

storage control device, and the N_Port_Name information of an accessible host computer, and further having means for deterring unauthorized access with respect to each storage region.

[Claim 4]

The fiber channel connection storage control device according to claim 2, characterized in that the storage control device has means for performing table-based management and storage of the information of the correspondence among the N_Port_Name information in a way such that where the storage device under control of the storage control device is any one of an optical disk drive, magneto-optical disk drive and magnetic tape device as well as library apparatus of them, said means deals with an accessible host computer, a port or ports of the storage control device and the storage device in a mutual correspondence manner and further executes correspondence management of media in the case of library apparatus; and also has means for deterring unauthorized access from the host computer.

[Claim 5]

The fiber channel connection storage control device according to claim 1, characterized in that the information to be managed by the storage control device for prevention of unauthorized access from the

host computer is settable using a panel.

[Claim 6]

The fiber channel connection storage control device according to claim 1, characterized in that the information to be managed by the storage control device for prevention of unauthorized access from the host computer is settable using a panel, and by further comprising a protection scheme for use when setting of the information.

[Claim 7]

The fiber channel connection storage control device according to claim 1, characterized in that the information to be managed by the storage control device for prevention of unauthorized access from the host computer is settable using a utility program of the host computer.

[Claim 8]

The fiber channel connection storage control device according to claim 1, characterized in that the information to be managed by the storage control device for prevention of unauthorized access from the host computer is settable using a utility program of the host computer, and by further comprising an input protection scheme for use upon setup of the information.

[Claim 9]

In a computer system with a channel of the network architecture type for use as an interface between a plurality of host computers and a storage control device, said system comprising more than one host computer and a storage control device as well as more than one storage device under control of the storage control device, characterized in that

host computer identification information capable of distinctly identifying the host computer is prestored in the storage control device prior to startup of the plurality of host computers, and that a channel connection storage control device is operable, upon startup of the host computer to generate and issue a frame storing therein host computer identification information and upon receiving of the frame, to perform comparison in determining whether the host computer identification information stored in the frame is already established in said storage control device to permit, when the comparison results in match, execution of processing based on the frame to continue and to reject any request when the comparison results in failure of match.